Water & Wastewater Treatment Equipment

Malaysia

Market Overview

The current total market size is estimated at US$ 779 million and is expected to grow by 10%. This growth will likely be a result of improved economic performance, continued growth in government spending and expansion of the manufacturing sector, especially export-oriented industries.

The majority of equipment used by the water and wastewater treatment sector is sourced from Japan, U.S., China, Taiwan, and Germany. Total imports of water and wastewater equipment in 2004 were an estimated US$ 820 million (source: Malaysia Statistics Department), an increase of 6% compared with 2003. With 29% of the imports in 2004, the U.S. had the largest market share, followed closely by Japan, with a market share of 28%.

Although U.S. water and wastewater equipment has gained an excellent reputation for quality and advanced technology, a common concern is that U.S. firms lack back-up support and long-term commitment to the Malaysian market.

Market Trends

The rapid rate of economic development in Malaysia has caused serious environmental problems in the country, the more prominent being industrial pollution and land development. The Government of Malaysia (GOM) has initiated a fairly comprehensive set of environmental regulations, which is embodied in the Environmental Quality Act 1974 (EQA) and its subsequent amendments. The Department of Environment (DOE), under the Ministry of Natural Resources and Environment, is the federal agency responsible for implementing and enforcing the EQA.

Although the GOM advocates a vision of sustainable development, it has not equipped the DOE with sufficient power, financial resources, manpower, and technical tools to police polluters. Malaysia's developing middle class, increasingly concerned about environmental issues, has dramatically increased public debate and heightened political concern about the environment. Broad media coverage allows fairly dynamic interaction between public groups and the GOM, which has led to spurts of environmental enforcement activities.

Below are some of the parameter limits of effluents that can be discharged into inland waters under the Sewage and Industrial Effluents Regulations 1979:

	Standard A	Standard B
Biochemical Oxygen Demand (BOD)	20	50
Chemical Oxygen Demand (COD)	50	100
Suspended Solids	50	100
Mercury	0.005	0.05
Cyanide	0.05	0.10
Lead	0.10	0.50
Sulfides	0.50	0.50
Oil and Grease	Not detectable	10

All units are in parts per million.
Standard A parameter limits discharge into inland waters within the catchment areas.
Standard B parameter limits discharge into other inland waters.

In the latest publication by DOE entitled the *Malaysia Environmental Quality Report 2003*, it was reported that 44.5% of rivers monitored in Malaysia were clean, 48.4%

found to be slightly polluted and 7.1% polluted. The major pollution sources are ammoniacal nitrogen (NH3-N) from sewage that includes livestock farming and domestic sewage; suspended solids (SS) due to earthworks and land-clearing activities; and biochemical oxygen demand (BOD) from sewage and discharges from agro-based and manufacturing industries.

Competition

Domestic Production
There is little domestic production of water and wastewater treatment systems. Most local equipment providers typically act as agent distributors for a range of complementary products, although many have some assembling and fabrication capability.

Imports
Water and wastewater treatment equipment is mainly imported from U.S., Japan, China, Taiwan and Germany, among others. Chinese, Taiwanese and local manufacturers present the most competition to U.S. companies in production of lower value equipment, such as screens and tanks, and primary wastewater treatment systems. In the high-tech segment, the Japanese and Germans are the main competitors.

Commercial Opportunities

In the industrial water and wastewater markets, opportunities exist in integrated wastewater systems, including process design and engineering, pollution prevention technologies, and wastewater recycling. Advanced waste recovery systems for solvents, waste oil, acid and metals are in demand in the printed circuit board, iron and steel, electronics, and semiconductor industries. Also in demand are high-tech water monitoring and analytical equipment, and oil-water separators.

With regard to technology, industries are looking for compact biological treatment systems and aeration equipment. Some of the best opportunities are in providing advanced wastewater treatment chemicals, which are mainly imported from Taiwan and the U.K. Malaysia continues to import much of its water/wastewater treatment chemicals since local producers are able to provide only the basic chemicals such as pH adjusters and alkali-based chemicals. Most advanced chemicals are imported from Germany, the U.K., and the U.S.

End Users

The major sources of industrial wastewater pollution are concentrated on the western coast of Peninsular Malaysia, with nearly 59% of the major sources located in the states of Selangor, Johor and Perak.

The biggest sources of industrial water pollution are: food and beverage producers, chemical-based industries, paper, palm oil and rubber processing, and textiles. Small and medium-sized enterprises (SMEs) are also major contributors to industrial wastewater pollution because of the lack of space and financial resources to install on-site treatment facilities.

Amendments to the EQA in 2000 showed that authorities are beginning to accept the necessity of putting the SMEs out of business for non-compliance. The amendments include a minimum two-fold increase in prison terms and fines, stricter emission standards, auditing requirements, and the ability to close down polluting factories.

Market Access

The market for pollution control equipment faces few trade barriers. In recent years, the GOM has created tax incentives and other initiatives for industrial environmental investments. No duties are imposed on most pollution control equipment, only on components that have multiple uses.

The best way to enter the Malaysian market is to establish a local presence, which is a crucial component of doing business in Malaysia for contacts or after-sales service.

Many American consulting firms choose to have partnerships or joint venture agreements with local firms, and equipment suppliers generally appoint local agent distributors.

Other Resources and Key Contacts

- U.S. Country Commercial Guide for Malaysia: www.export.gov
- U.S. Commercial Service Market Research Worldwide: www.export.gov
- Malaysia Department of Environment: www.jas.sains.my
- Malaysia Ministry of Natural Resources and Environment: www.nre.gov.my
- Malaysia Ministry of Energy, Water and Communications: www.ktkm.gov.my

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